Remarks:

The above amendments and the following remarks are responsive to the Office action dated March 1, 2005. Claims 1-29 are pending in the application. In the Office action, the Examiner rejected claims 1-29 finally under 35 U.S.C. § 103. Applicant traverses these rejections. Applicant contends that the rejected claims are not obvious.

Nevertheless, to reduce the number of issues under consideration in this response, and to expedite the issuance of a patent, applicant has amended claims 1-3, 10-13, 20, 22 and 23 (and has added new claim 30). Applicant reserves the right to pursue these claims in their original or previously amended form in future prosecution of the present application or continuations thereof. Moreover, applicant has presented remarks showing that the cited references, alone or in combination, neither teach nor suggest the claimed invention. Accordingly, applicant respectfully requests reconsideration of the rejected claims, and prompt issuance of a Notice of Allowability.

Claim Rejections – 35 U.S.C. § 103

The Examiner rejected independent claims 1, 12, and 22 as being obvious over U.S. Patent No. 5,680,455 to Linsker et al. ("Linsker") in view of U.S. Patent No. 5,633,932 to Davis et al. ("Davis"). Applicant traverses these rejections, contending that the rejected claims are patentable. Nevertheless, to expedite prosecution, applicant has amended claims 1, 12 and 22. None of the references of record, either alone or in combination, teaches or suggests every element of amended claims 1, 12, or 22, or their dependent claims 2-11, 13-21 or 23-29. Reasons for this assertion are set forth below for each of these claims.

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A.   Claim 1

Claim 1, as currently amended, is directed to a method for regulating the ability

of a sender to print on a printer:

> 1.   (Currently amended)   A method for regulating the ability of a
> **sender** [[user]] to print on a printer, comprising the steps of:
>   receiving, at a printer, a print job from a **sender** [[user]], where the print
> job includes a representation of a document and an aspect of the print job that is
> encrypted with a private key of the **sender** [[user]];
>   verifying the **sender** [[user]] by decoding the aspect using a public key of
> the **sender** [[user]], where the public key and the private key form a key pair;
>   ~~determining if the user with the private key has permission to print;~~ and
>   printing the document on the printer only if the **aspect of the print job is
> decoded successfully** ~~user is a verified user and has permission to print~~.

Neither Linsker nor Davis teaches or suggests printing "only if the aspect of the print job

is decoded successfully."

Linsker relates to a method and apparatus for authenticating analog messages

sent via facsimile machines. Using cryptography, the method and apparatus are

intended to distinguish authentic messages (sender authentication) from those that are

forged. However, the Linsker patent does not teach or suggest printing (or not printing)

a document based on sender authentication (or lack thereof). Linsker thus does not

teach or suggest printing only if an encrypted aspect of a print job is decoded

successfully, as required, in part, by claim 1.

Davis relates to a system for preventing output of a document at a printing node

until the printing node authenticates the intended recipient (recipient authentication).

The Davis patent discloses various "authentication techniques to confirm that the

intended recipient is present at the printing node" including an authenticating token that

can be inserted into the printing node (col 5, lines 33-35 and lines 52-65). The

authenticating token has a public key and a private key of the recipient. Davis discloses

the use of a "standard challenge/response protocol" at the printing node to prove that

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the token has possession of the private key, thus authenticating the recipient. Therefore, Davis does not teach or suggest printing based on sender verification and particularly does not teach or suggest printing only if an encrypted aspect of the print job is decoded successfully, as required, in part, by claim 1.

Davis does disclose placing the public key of the token in the header of a print job, in an encrypted format (col. 5, lines 54-58). However, Davis is silent about how the public key is to be encrypted. Davis thus does not teach or suggesting encrypting an aspect of the print job with the private key of a sender, as required, in part, by claim 1. Furthermore, Davis does not teach or suggest any particular role for decoding the encrypted public key, and particularly not printing only if decoding is successful.

Not only do Linsker and Davis not teach or suggest the claimed invention, but applicant believes that it also would not have been obvious to combine Linsker and Davis at the time of the invention. Linsker relates to _sender_ authentication for a facsimile machine, and Davis relates to _recipient_ authentication with the recipient present at a printing node. It would not have been obvious that _recipient_ authentication with the recipient present at the printing node would be applicable to _sender_ authentication for a facsimile machine, because the sender and recipient for a facsimile transmission rarely are the same person.

In summary, neither Linsker nor Davis, either alone or in combination, teaches or suggests every element of claim 1. Furthermore, even if they do, and applicant maintains that they do not, it would not have been obvious to combine these references. Therefore, claim 1 should be allowed. Claims 2-11, which depend from claim 1, also should be allowed for at least the same reasons as claim 1.

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B.   Claim 12

Claim 12, as currently amended, is directed to a system for regulating the ability of a sender to print on a printer:

> 12.   (Currently Amended) A system for regulating the ability of a **sender** [[user]] to print on a printer, comprising:
>   a sending processor that includes a private key of a **sender** [[user]], where the private key forms a key pair with a public key, the sending processor being adapted to encrypt an aspect of a print job using the private key and to send the print job and encrypted aspect over a network; and
>   a printer in communication with the sending processor, where the printer is adapted to receive the print job and encrypted aspect from the sending processor, to verify the **sender** [[user]] by decoding the encrypted aspect using the public key, ~~to determine if the user with the private key has permission to print~~, and to print a document based on the print job only if the **aspect of the print job is decoded successfully** ~~user is a verified user and has permission to print~~.

Neither Linsker nor Davis teaches or suggests printing a document "only if the aspect of the print job is decoded successfully." Therefore, claim 12 should be allowed for at least the same reasons as those described above for claim 1. In addition, claims 13-21, which depend from claim 12, also should be allowed for at least the same reasons as claim 12.

C.   Claim 22

Claim 22, as currently amended, is directed to a printer for regulating the ability of a sender to print on a printer:

> 22.   (Currently Amended) A printer capable of regulating output of a print job from a **sender** [[user]], comprising:
>   a printer in communication with a **sender** [[user]] and adapted to receive a print job that has an aspect encrypted with a private key of the **sender** [[user]], to verify the **sender** [[user]] by decoding the aspect using a public key of the **sender** [[user]] that forms a key pair with the private key, to determine if the **sender** [[user]] with the private key has permission to print, and to output the print job only if the **aspect of the print job is decoded successfully** ~~user is a verified user and has permission to print~~.

Neither Linsker nor Davis teaches or suggests outputting a print job "only if the aspect of the print job is decoded successfully." Therefore, claim 22 should be allowed for at

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least the same reasons as those described above for claim 1. In addition, claim 23-29,

which depend from claim 22, also should be allowed for at least the same reasons as

claim 22.

New Claim

Applicant has added a new claim, claim 30, in the present communication.

Claim 30 is directed to a method of regulating the ability of a user to print on a printer:

> 30.   (New) A method for regulating the ability of a user to print on a printer, comprising the steps of:
> receiving, at a printer, a print job from a user, where the print job includes a representation of a document and an aspect of the print job that is encrypted with a private key of the user;
> verifying the user by decoding the aspect using a public key of the user, where the public key and the private key form a key pair;
> determining, in a process distinct from verifying, if the user has permission to print; and
> printing the document on the printer only if the user is a verified user and has permission to print.

Support for claim 30 is included in the application as filed, for example, on page 6, lines

20-22. Furthermore, claim 30 is patentable over the art of record. In particular, none of

the cited references, alone or in combination, teaches or suggests (1) verifying a user,

(2) determining, in a process distinct from verifying, if the user has permission to print,

and (3) printing only if the user is a verified user and has permission to print, as

required, in part, by claim 30. Davis, for example, merely verifies whether or not an

intended recipient is present. The Examiner asserts that permission is inherent in such

verification. Applicant respectfully disagrees. Nevertheless, even if Davis is construed

to determine permission to print by verification of the recipient, such verification and

permission are not in distinct processes. In contrast, claim 30 recites "verifying the

user" and "determining, in a process distinct from verifying, if the user has permission to

print." The recited method thus permits additional regulation of printing relative to Davis.

For example, a user, even if verified, may not have permission to print at all or may not

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have permission to print particular types of print jobs, such as print jobs that specify color output, thereby providing more flexible and efficient control over use of a printer. Therefore, claim 30 should be allowed.

Applicant believes that this application is now in condition for allowance, in view of the above amendments and remarks. Accordingly, applicant respectfully requests that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney of record.
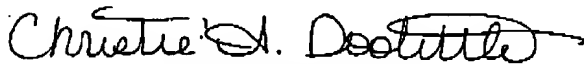
Respectfully submitted,

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this correspondence is being facsimile transmitted to Examiner B. Hoffman, Group Art Unit 2136, Assistant Commissioner for Patents, at facsimile number (703) 872-9306 on May 2, 2005.

Christie A. Doolittle

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